

TM 13: Student Work A

Dog Pen Problem Name A

A dog trainer wants to make the largest possible pen for his dogs. He has 42 feet of fence. What is the largest area the pen can have?

Length	Width	Perimeter	Area
15	6	42	90
13	8	42	104
11	10	42	110 *
9	12	42	108
7	14	42	98
5	16	42	80
3	18	42	54
1	20	42	20

The rectangle with the largest area has a length of 11
and a width of 10. or 10 x 11

TM 13: Student Work B

Dog Pen Problem

Name B

A dog trainer wants to make the largest possible pen for his dogs. He has 42 feet of fence. What is the largest area the pen can have?

Length	Width	Perimeter	Area
10	11	42	110
20	1	42	20
8	13	42	104
7	14	42	98
10.5	10.5	42	110.25 *
5	16	42	80
		42	

The rectangle with the largest area has a length of 10.5 and a width of 10.5.

TM 13: Student Work C

Dog Pen Problem

Name C

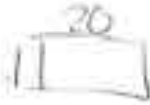
A dog trainer wants to make the largest possible pen for his dogs. He has 42 feet of fence. What is the largest area the pen can have?

Length	Width	Perimeter	Area
10	11	42	110
20	1	42	20
10.5	10.5	42	441? 110
12	9	42	108
		42	
		42	
		42	
		42	
		42	
		42	
		42	
		42	
		42	

The rectangle with the largest area has a length of _____ and a width of _____.

$$42 \div 4 = 10.5$$

TM 13: Student Work D



Dog Pen Problem

Name D

A dog trainer wants to make the largest possible pen for his dogs. He has 42 feet of fence. What is the largest area the pen can have?

	Length	Width	Perimeter	Area
*	10	11	42	110
*	20	1	42	20
*	40	1	42	40
*	15	6	42	90
*	19	2	42	38
*	13	8	42	104
*	14	7	42	98
*	16	5	42	80
*	17	4	42	68
*	18	3	42	54
*	12	9	42	108

The rectangle with the largest area has a length of _____ and a width of _____.

TM 13: Student Work E

Dog Pen Problem

Name

E

A dog trainer wants to make the largest possible pen for his dogs. He has 42 feet of fence. What is the largest area the pen can have?

Length	Width	Perimeter	Area
8	13	42	104
20	1	42	20
19	2	42	38
18	3	42	54
17	4	42	68
16	5	42	80
15	6	42	90
14	7	42	98
13	8	42	104
12	9	42	108
11	10	42	110
10	11	42	110
9	12	42	108

The rectangle with the largest area has a length of 10 and a width of 11.

TM 13: Student Work F

Dog Pen Problem

Name F

A dog trainer wants to make the largest possible pen for his dogs. He has 42 feet of fence. What is the largest area the pen can have?

$$\begin{array}{r} 10.25 \\ 10.25 \\ \hline 51.25 \\ 20.50 \\ \hline 102.50 \\ 174.25 \end{array}$$

Length	Width	Perimeter	Area
$10\frac{1}{2}$	$10\frac{1}{2}$	42	157.5

The rectangle with the largest area has a length of $10\frac{1}{2}$ and a width of $10\frac{1}{2}$.

$$\begin{array}{r} 10.5 \\ 10.5 \\ \hline 21.0 \\ 21.0 \\ \hline 42.0 \end{array}$$

TM 13: Student Work G (front)

Dog Pen Problem

Name

G (front)

A dog trainer wants to make the largest possible pen for his dogs. He has 40 feet of fence. What is the largest area the pen can have?

Length	Width	Perimeter	Area
10	10	40	100
18	2	40	
17	3	40	
1	19	40	19
2	18	40	36
3	17	40	51
4	16	40	64
5	15	40	75
6	14	40	
7	13	40	
8	12	40	
9	11	40	
10	10	40	

The rectangle with the largest area has a length of _____ and a width of _____.

17
17
17

12
28
40

6.2
6.2
8.2
21

TM 13: Student Work G (back)

G (back)

$$\begin{array}{r} 40 \\ - 8 \\ \hline 32 \\ 2 \overline{) 32} \\ \underline{16} \end{array}$$

$$\begin{array}{r} 40 \\ - 10 \\ \hline 30 \\ 2 \overline{) 30} \\ \underline{15} \end{array}$$

$$\begin{array}{r} 36 \\ - 12 \\ \hline 24 \\ 2 \overline{) 24} \\ \underline{12} \end{array}$$

TM 13: Student Work H (front)

H (front)

Dog Pen Problem

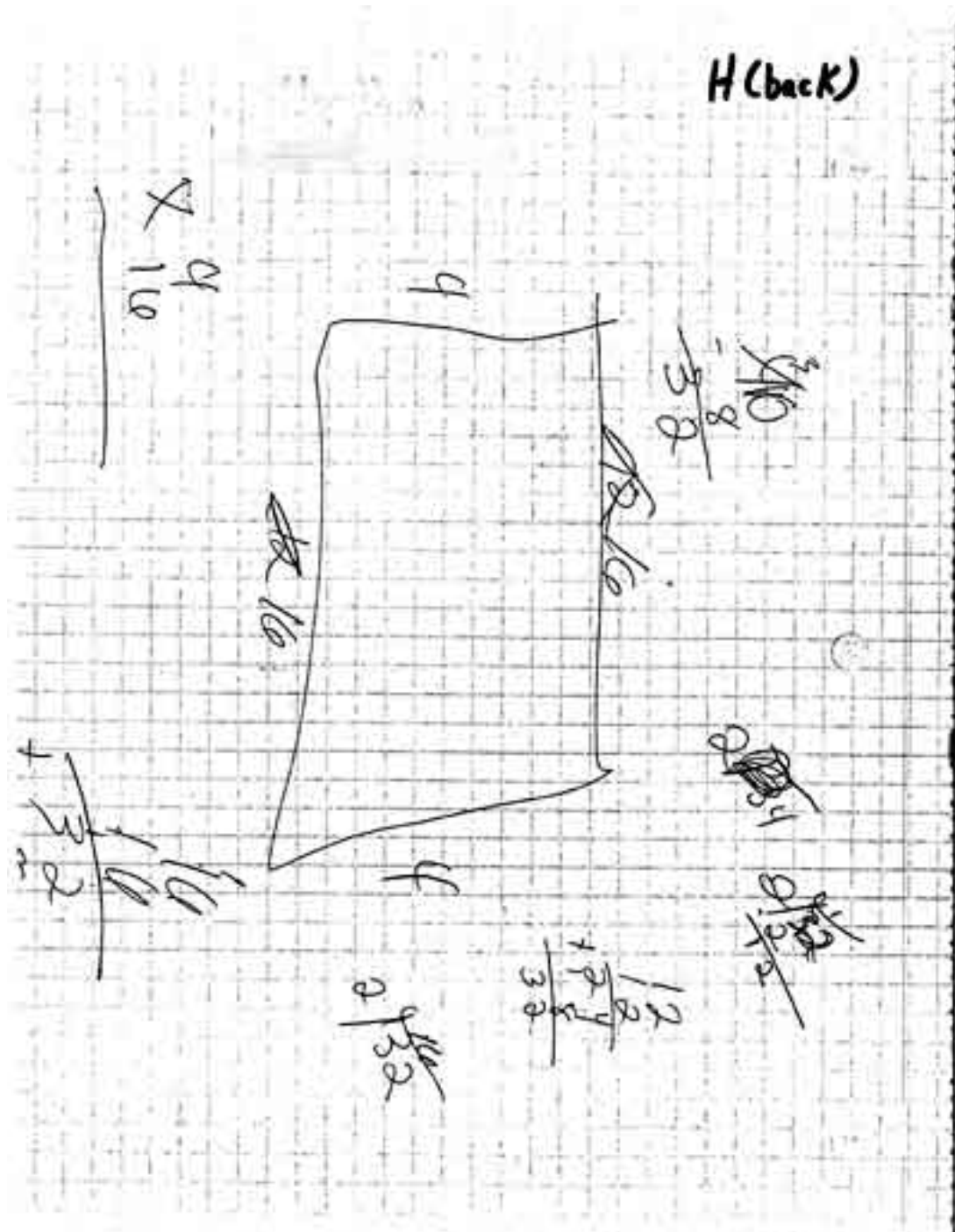
Name 

A dog trainer wants to make the largest possible pen for his dogs. He has 40 feet of fence. What is the largest area the pen can have?

Length	Width	Perimeter	Area
9	11	20	99
18	2	40	36
9	5	40	45
18	18	40	18
2	18	40	36
3	17	40	
4	16	40	64
5	15	40	75
6	14	40	84
		40	
		40	
		40	
		40	

The rectangle with the largest area has a length of _____ and a width of _____.

TM 13: Student Work H (back)



TM 13: Student Work I (front)

I (front)

Dog Pen Problem

Name Sam

A dog trainer wants to make the largest possible pen for his dogs. He has 40 feet of fence. What is the largest area the pen can have?

$$\begin{array}{r} 13 \\ \times 7 \\ \hline 91 \\ 11 \\ \hline 91 \end{array}$$

Length	Width	Perimeter	Area
7	13	40	91
9	11	40	99
1	19	40	18
2	18	40	
4	16	40	64
5	15	40	75

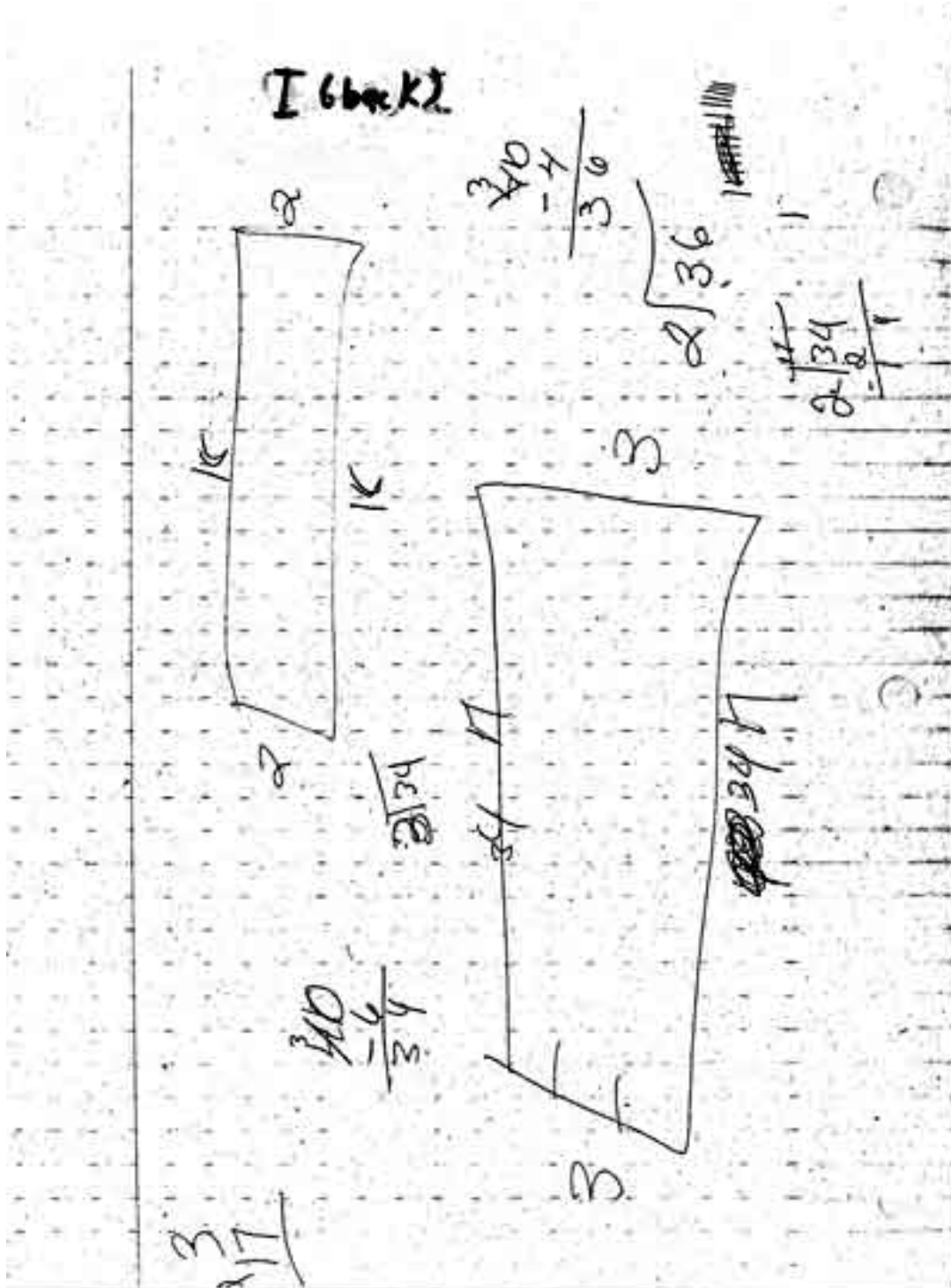
The rectangle with the largest area has a length of _____ and a width of _____.

$$\begin{array}{r} 18 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ \times 9 \\ \hline 99 \end{array}$$

$$\begin{array}{r} 15 \\ \times 5 \\ \hline 75 \end{array}$$

TM 13: Student Work I (back)



TM 13: Student Work J

Dog Pen Problem

Name

J

A dog trainer wants to make the largest possible pen for his dogs. He has 40 feet of fence. What is the largest area the pen can have?

Length	Width	Perimeter	Area
7	13	40	91
14	19	40	18
2	18	40	
4	4	18	64
5	16		

The rectangle with the largest area has a length of _____ and a width of _____.